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APPLICATION OF LANDSAT-2 DATA TO THE IMPLEMENTATION AND ENFORCEMENT OF THE PENNSYLVANIA SURFACE MINING CONSERVATION AND RECLAMATION ACT

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TYPE II PROGRESS REPORT

FOR PERIOD JUNE 19, 1976 - SEPTEMBER 19, 1976

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TYPE II - Progress Report

For Period June 19, 1976 - September 19, 1976

Introduction to Project Objectives

The central objectives of the Pennsylvania LANDSAT Investigation are:

- To prepare information products from analysis of LANDSAT and aircraft imagery to rapidly and effectively implement the regulatory provisions of Pennsylvania's Surface Mining Conservation and Reclamation Act.
- To develop and operationally implement a monitoring system, within one or more detailed study sites, which will include surface mine disturbance change detection, reclamation status monitoring and mined lands inventory updating.
- To provide utilitarian regulatory information products to line agencies within the Pennsylvania Department of Environmental Resources.

Problems

Acquisition of cloud free LANDSAT imagery of the Clarion County Pennsylvania test site for 1976 did not occur until 17 August. A preliminary examination of the Goddard Browse file imagery indicated it to be of excellent quality.

Accomplishments

Sixth quarter activities: U-2 photography from a 19 may 1976 overflight of Clarion and Clearfield counties was acquired from EROS Data Center on 10 September 1976. A classification of mined lands is being made similar to that conducted on 1975 U-2 imagery. CCTs of the LANDSAT-1 imagery of 17 August 1976 has been ordered.

Seventh quarter activities: Analysis of the U-2 photography will be completed and the data incorporated onto a composite orthophoto and toponymic map at a scale of 1:24,000. These data will provide a basis of reference for analysis of the LANDSAT imagery.

Various photographic and computer processing techniques will continue to be examined on LANDSAT imagery for increasing the interpretability of surface mined land areas.

Also various means of LANDSAT data presentation, in a format acceptable by potential users in the state, are being investigated.

Test site field investigations will be made with the local district mine inspector. These investigations will be made on the ground and from low flying aircraft.

Significant Results

None.

<u>Publications</u>

None.

Recommendations

None.